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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,008	03/10/2004	Joseph P. Markham	7032-85-CIP	4940

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EXAMINER	
SAYALA, CHHAYA D	
ART UNIT	**PAPER NUMBER**
1761	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,008	MARKHAM ET AL.	
	Examiner	Art Unit	
	C. SAYALA	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on 6/27/06 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent application 10/431490 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 14-27, 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Wenger (US Patent 5939124) and Hauck et al. (US Patent 6609819) in view Martin et al. (US Patents 5820039 and 5713526) and further in view of Miller et al. (US Patent 3899607), Fritz-Jung et al. (US Patent 6270820) and Spanier (US Patent 4997671).

Wenger teach extruding starch bearing grains such as milo (see col. 7, lines 1-3), with the addition of fish meal into pellets. Note col. 3, lines 15-30 and col. 9, lines 30-65 and col. 17, lines 5-10 that teach the variation of moisture content for the density required. See col. 9, lines 60-65 that teach equilibrating moisture levels after extrusion

by cooling/drying, i.e. curing and that the final product has a moisture content of up to 20 wt% or preferably up to about 18 wt%. Similarly, Hauck et al. teach extruding sorghum (col. 6, line 5) with a Wenger extruder under different operating conditions and amounts of ingredients so that both dense pellets such as for aquatic feed and less dense pellets such as for bird feed can be manufactured (see col. 6 and col. 7) and also medium densiy pellets for pet foods (col. 2). The patents do not show decorticating, cleaning, destoning and scouring milo.

Martin et al. teach decorticating, cleaning, destoning and scouring milo berries. See Fig 1. Col. 1 states that such processes remove the bitter tannins from milo berries. The berries are then ready for use in food products (see col. 2, lines 25+).

It would have been obvious to use the Martin et al. process to precede the extrusion shown by Wenger and Hauck et al. for the reasons shown by Martin et al., which is to improve the taste. Further, cleaning and other preparation steps preceding food manufacture using sorghum grain, appear to be known in the art at the time the invention was made and would have been obvious to one of ordinary skill in the art. Note that Martin et al. discloses dehulling and scouring, stating that scouring removes any remaining hull (col. 3, lines 12-13). However, when the claim is read in light of the specification, it is clear that the scouring should have done what is disclosed by the instant specification as well, which is de-fatting the milo, even though the reference only states that the scouring removed any remanant hull and is silent about removing fat. The scouring is the same and is conducted similarly, after de-hulling, and therefore, must have resulted in the same de-fatting step

The above patents do not teach grinding the extruded product and re-extruding the product to be molded, baked or pelletized. Fritz-Jung et al. teach such steps. See col. 3, lines 45+, where the extruded product is ground and re-extruded and cut into kibbles. Miller et al. also teach grinding the extruded food product and then re-extruding the resultant product into a molded product. See col. 5, lines 1-20. Such steps therefore, were old and known in the art when food products with proteinaceous and farinaceous ingredients were used and extruded. Spanier teaches using milo as the grain ingredient and extruding the dough by means of extrusion molding. See col. 6, line 47, col. 8, line 62 to col. 9, line 6, col. 10, line 48 to col. 11, line 13 and col. 12, lines 35-47. Example 1 teaches that the extruded dough when molded is baked in an oven at 185-200^{0}F. Wenger and Hauck et al. teach extruding milo containing food into pellets.

To incorporate steps that include grinding and re-extruding by extrusion molding and baking the molded product or cutting the re-extruded product into kibbles or extruding into pellets would have been obvious to one of ordinary skill in the art at the time the invention was made, since prior art as applied above teach that these were known in the art and were practiced to obtain the desired shape. Wenger and Hauck teach extrusion too with use of milo as an ingredient, and extrusion into molds, as pellets and baking an extruded product were all embodiments known in the food art as established by these references and all when sorghum/milo was one of the ingredients.

2. Claims 28-29 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Wenger (US Patent 5939124) and Hauck et al. (US Patent 6609819) in view Martin et al. (US Patents 5820039 and 5713526), Miller et al. (US Patent 3899607), Fritz-Jung et al. (US Patent 6270820) and Spanier (US Patent 4997671) and further in view of Langford et al. (US Patent 2368668) and Watson (STARCH:Chemistry & Technology, Eds. Whistler et al., second edition, 1984, Chapter XII).

Wenger teach extruding starch bearing grains such as milo, corn, wheat, soy, oats, etc. (see col. 7, lines 1-3), with the addition of fish meal and vitamin premixes (see col. 3, lines 15-24, 40-50). Note also col. 9, lines 30-65, which states: "Protein and/or starch can be provided by appropriate protein and starch-bearing materials or through direct addition of desired proteins and starches." However, the patent does not teach obtaining such starch from these starch-bearing materials. See col. 9, lines 60-65 that teach equilibrating moisture levels after extrusion by cooling/drying, i.e. curing. Since the Wenger patent envisions the use of pet foods as part of its concept, then the other additives of claim 13 are rendered obvious since they are typical of pet food products. The patents do not show decorticating, cleaning, and removing starch from the grain.

Martin et al. teach decorticating, cleaning, destoning and scouring milo berries. See Fig 1. Col. 1 states that such processes remove the bitter tannins from milo berries. The berries are then ready for use in food products (see col. 2, lines 25+).

As for removing starch from the grain, such processes are known in the art as evidenced by the processes of Langford et al. and Watson. See claims and pages 433+, respectively. To incorporate such in the teachings of Wenger so that starch can be used directly in making those products would have been prima facie obvious.

It would have been obvious to use the Martin et al. process to precede the extrusion shown by Wenger for the reasons shown by Martin et al., which is to improve the taste. Further, cleaning and other preparation steps preceding food manufacture using grains, appear to be known in the art at the time the invention was made and would have been obvious to one of ordinary skill in the art (see Watson). The patents to Miller et al., Spanier and Fritz-Jung et al. are all as discussed above and render obvious limitations of grinding the extruded product, re-extruding the resultant product into a molded product and also render obvious such processes as baking or pelletizing extruded products.

Response to Arguments

Applicant's arguments filed 6/27/06 have been fully considered but they are not persuasive.

At page 8 of his remarks, applicant's position that Martin et al. do not teach the claimed scouring step is directed to removing the fatty endogerm is unpersuasive. The method contains the step of scouring, the scouring being disclosed after de-hulling, and therefore the scouring must have removed the fatty endogerm. The patent teaches that only the remaining hulls are removed. In fact, the patent teaches that by adjusting the

weight on the damper, a greater amount hull can be removed and by adjusting resident time essentially all of the hull can be removed, in which case, the fact that the scourer provides de-fatting the grain is rendered obvious. In any event, de-fatting is also provided by Hauck et al. as discussed above and the scouring step has been met by Martin et al. As for the other arguments with respect to claims 28-29, and 37, applicant states that removing starch from the grain and then combining the starch with an additive is novel and unobvious and therefore such claims are patentable over prior art. While the now applied references render obvious such limitations, it would have been obvious to one of ordinary skill in the art to incorporate such simple steps to modify the Wenger reference teaching the direct addition of starch, but not teaching obtaining the starch from the milo grain.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. SAYALA
Primary Examiner
Group 1700.